

WHAT IS CLAIMED IS

1. A scaling device for projecting an optical pattern in a field of view of a camera to provide a scale reference in a photograph comprising:

a) a housing; and

5 b) means disposed in said housing for generating a plurality of equally spaced, parallel output light beams;

whereby, said device can be positioned to direct said parallel output beams on an object in a field of view of a camera to form a pattern of equally spaced light spots thereon.

10 2. The scaling device of claim 1, wherein said means disposed in said housing for generating a plurality of equally spaced, parallel output light beams comprises:

1) a light source disposed in said housing for generating a first light beam;

2) a power source disposed in said housing for powering said light source; and

15 3) a collection of optical elements disposed in said housing and positioned to receive said light beam and form said plurality of equally spaced, parallel output beams.

3. The scaling device of claim 2, wherein said light source comprises a laser diode.

20 4. The scaling device of claim 2, wherein said optical elements include a plurality of beam splitters and a plurality of mirrors that are arranged to divide said light beam into said plurality of output beams.

5. The scaling device of claim 4, wherein said optical elements are arranged so that said output beams have equal intensities.

6. The scaling device of claim 4, wherein said collection of optical elements includes a plurality of equal sized spacers that are assembled with said plurality of beam splitters and plurality of mirrors so that the spacing between each pair of adjacent beams in said plurality of output beams is equal.

7. The scaling device of claim 1, wherein said means disposed in said housing for generating a plurality of equally spaced, parallel output light beams comprises:

- 1) a plurality of light sources disposed parallel to one another in said housing, each for generating a corresponding one of said plurality of equally spaced, parallel output beams; and
- 2) a power source disposed in said housing for powering said light sources.

8. The scaling device of claim 7, wherein each of said light sources comprises a laser diode.

9. The scaling device of claim 7, further including adjustment means for adjusting positioning of each of said light sources to insure that said output beams are parallel to one another.

10. The scaling device of claim 1, further including a means on said housing for attaching said device to a camera.

11. The scaling device of claim 1, further including a battery power supply disposed in said housing for powering said means for generating said plurality of equally spaced, parallel output light beams.

5 12. A method for providing a scale reference pattern on an object in a photographic image comprising the steps of:

 a) providing a housing and means disposed in said housing for generating a plurality of equally spaced, parallel output light beams, each of said beams being spaced from one another by a predetermined known distance;

10 b) positioning said housing so that said parallel output beams form an optical pattern on an object in a field of view of a camera;

 c) photographing said object with said camera to obtain an image having said optical pattern therein; and

15 d) examining said image to determine scale attributes of said object from said optical pattern.

 13. The method of claim 12, wherein said step of positioning said housing further comprises mounting said housing on said camera.

20 14. The method of claim 12, wherein said step of providing means disposed in said housing for generating a plurality of equally spaced, parallel output light beams comprises providing: a light source disposed in said housing for generating a first light beam; a power source disposed in said housing for powering said light source; and a collection of optical

elements disposed in said housing and positioned to receive said light beam and form said a plurality of equally spaced, parallel output beams.

15. The method of claim 14, wherein said light source is selected to be a laser diode.

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16. The method of claim 14, wherein said optical elements are selected to include a plurality of beam splitters and a plurality of mirrors that are arranged to divide said light beam into said plurality of output beams.

10 17. The method of claim 16, wherein said optical elements are selected to be arranged so that said output beams have equal intensities.

15 18. The method of claim 12, wherein said step of providing means disposed in said housing for generating a plurality of equally spaced, parallel output light beams comprises providing: a plurality of light sources disposed parallel to one another in said housing, each for generating a corresponding one of said plurality of equally spaced, parallel output beams; and a power source disposed in said housing for powering said light sources.

20 19. The method of claim 18, wherein said step of providing a plurality of light sources disposed parallel to one another in said housing further comprises providing adjustment means for adjusting positioning of each of said light sources, and adjusting positioning of each of said light sources until said output beams are parallel to one another.

20. The method of claim 18, wherein said light source is selected to be a laser diode.

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